WHAT IS CLAIMED IS:

1. A metallic mirror comprising a substrate made of aluminum or an aluminum alloy, and an intermediate layer formed of TiO_2 and a metallic reflective layer formed of Cu which are superposed on the substrate in order.

2. The metallic mirror according to claim 1, which further comprises one or more protective layers provided on said metallic reflective layer.

3. The metallic mirror according to claim 1, which has a surface reflectance of 95% or higher.

4. The metallic mirror according to claim 1, which is a metallic rotary polygonal mirror.

5. The metallic mirror according to claim 2, wherein said protective layer is an aluminum oxide layer.

6. A metallic rotary polygonal mirror comprising;

a metallic polygonal mirror substrate made of aluminum or an aluminum alloy;

an intermediate layer of TiO_2 formed by vacuum deposition on the substrate;

a metallic reflective layer of Cu formed by vacuum

deposition on the intermediate layer; and

a protective layer including at least a layer of Al_2O_3, formed by vacuum deposition on the metallic reflective layer.

7. The metallic rotary polygonal mirror according to claim 6, wherein;

said intermediate layer has a layer thickness of from 50 nm to 150 nm, and said metallic reflective layer has a layer thickness of from 80 nm to 150 nm.

8. The metallic rotary polygonal mirror according to claim 6, wherein;

said protective layer comprises a double layer consisting of a first protective layer and a second protective layer.

9. The metallic rotary polygonal mirror according to claim 8, wherein;

said first protective layer is a layer of Al_2O_3, and said second protective layer is a layer of SiO_2.

10. The metallic rotary polygonal mirror according to claim 9, wherein;

said first protective layer has a layer thickness of from 150 nm to 200 nm, and said second protective layer has a layer thickness of from 10 nm to 20 nm.

11. The metallic rotary polygonal mirror according to claim 6, wherein;

said protective layer comprises a triple layer consisting of a first protective layer, a second protective layer and a third protective layer.

12. The metallic rotary polygonal mirror according to claim 11, wherein;

said first protective layer is a layer of Al_2O_3, said second protective layer is a layer of TiO_2, and said third protective layer is a layer of SiO_2.

13. The metallic rotary polygonal mirror according to claim 12, wherein;

said first protective layer has a layer thickness of from 150 nm to 200 nm, said second protective layer has a layer thickness of from 80 nm to 100 nm, and said third protective layer has a layer thickness of from 10 nm to 20 nm.

14. The metallic rotary polygonal mirror according to claim 6, which has a surface reflectance of 95% or higher.

15. A process for producing a metallic rotary polygonal mirror, comprising the steps of;

forming an intermediate layer of TiO_2 by vacuum

deposition on a metallic polygonal mirror substrate metal comprised of aluminum or an aluminum alloy;

forming a high-reflectance metallic reflective layer of Cu by vacuum deposition on the intermediate layer; and

forming a protective layer including at least a layer of Al_2O_3, by vacuum deposition on the metallic reflective layer.

16. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

during the formation of said intermediate layer of TiO_2, O_2 gas is added under a pressure of from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa.

17. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

during the formation of said high-reflectance metallic reflective layer of Cu, the metallic reflective layer is formed after the inside of a vacuum deposition chamber reaches a degree of vacuum of 2.66×10^{-3} Pa or above subsequently to the formation of said intermediate layer of TiO_2 film.

18. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

in the formation of said protective layer

including at least a layer of Al_2O_3, when the layer of Al_2O_3 is formed on said high-reflectance metallic thin film of Cu, the protective layer is formed without addition of any O_2 gas at the initial stage of film formation until the film comes to have a layer thickness of 15 to 30% of a stated layer thickness, and further thereon, after the film has been formed beyond 15 to 30% and until it comes to have the stated layer thickness, with addition of O_2 gas under a pressure of from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa.

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19. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

said intermediate layer is formed in a layer thickness of from 50 nm to 150 nm, and said metallic reflective layer is formed in a layer thickness of from 80 nm to 150 nm.

20. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

said protective layer is formed in a double layer consisting of a first protective layer and a second protective layer.

21. The process for producing a metallic rotary polygonal mirror according to claim 20, wherein;

said first protective layer is a layer of Al_2O_3,

and said second protective layer is a layer of SiO_2.

22. The process for producing a metallic rotary polygonal mirror according to claim 21, wherein;

said first protective layer is formed in a layer thickness of from 150 nm to 200 nm, and said second protective layer is formed in a layer thickness of from 10 nm to 20 nm.

23. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

said protective layer is formed in a triple layer consisting of a first protective layer, a second protective layer and a third protective layer.

24. The process for producing a metallic rotary polygonal mirror according to claim 23, wherein;

said first protective layer is a layer of Al_2O_3, said second protective layer is a layer of TiO_2, and said third protective layer is a layer of SiO_2.

25. The process for producing a metallic rotary polygonal mirror according to claim 24, wherein;

said first protective layer is formed in a layer thickness of from 150 nm to 200 nm, said second protective layer is formed in a layer thickness of from 80 nm to 100 nm, and said third protective layer is

formed in a layer thickness of from 10 nm to 20 nm.

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26. The process for producing a metallic rotary polygonal mirror according to claim 15, wherein;

said metallic rotary polygonal mirror has a surface reflectance of 95% or higher.